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A NEW SPECIES OF *SCELOPORUS*  
(UNDULATUS GROUP; SAURIA, IGUANIDAE)  
FROM MEXICO

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During the field investigations of an ecological transect across the Sierra Madre Oriental of Mexico from Huichihuayan, San Luis Potosi, to Cadereyta, Queretaro, a new and distinctive member of the *Sceloporus undulatus* group was discovered near Peña Blanca, Queretaro, along the Río Extoras, a small, permanent stream that flows into the Río Moctezuma.

Only two specimens of this population of *Sceloporus* were taken in June 1970, by Ketchersid. Dixon returned to the same area during September 1970, and secured four juveniles of the new species. The new *Sceloporus* appears to be restricted to an almost perfect relict of the Chihuahuan desert where ocotillo, prickly pear, peyote, catclaw, mesquite, leather plant, cresote bush, and desert Tillandsia are the common plants.

The new species of *Sceloporus* is isolated from other members of the group geographically and ecologically, therefore we wish it to be known as:

***Sceloporus exsul*** new species

Figures 1-2

*Holotype*: Adult male, Texas Cooperative Wildlife Collection 32376, taken at Peña Blanca, 1420 m, Queretaro, Mexico, by Chesley A. Ketchersid, 14 June 1970 (Figure 1).

*Paratypes*: TCWC 32377, 33075-78, subadult female, young female,

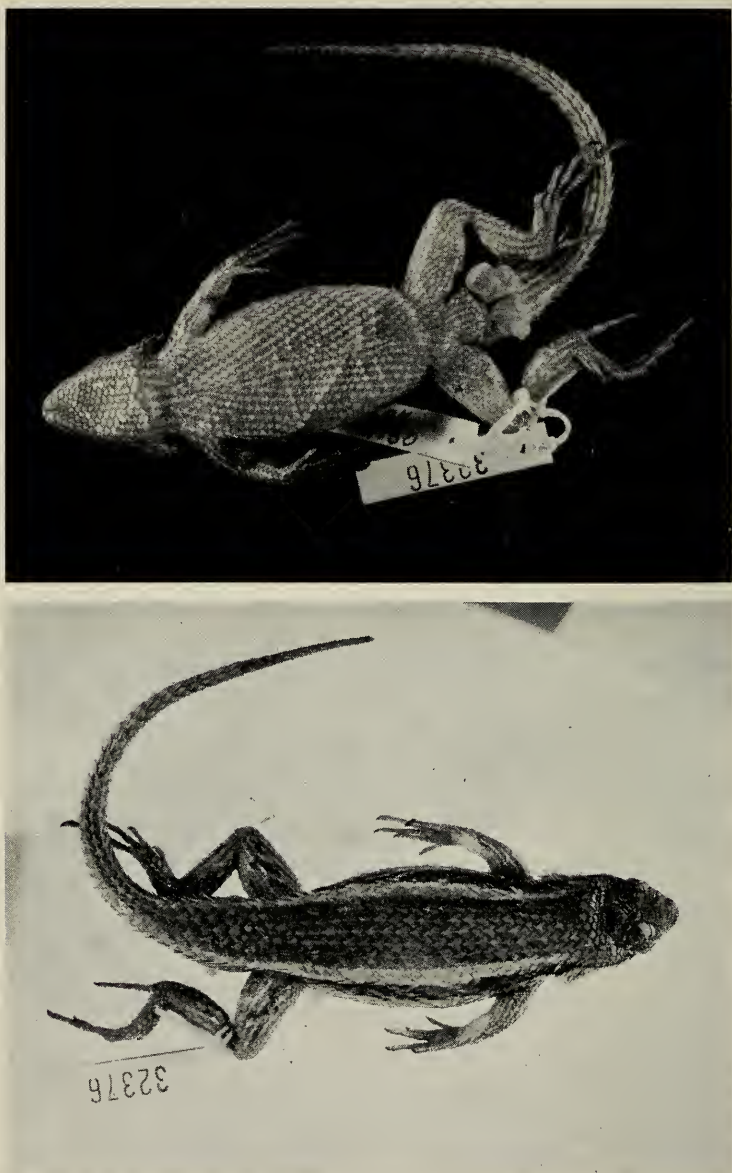


FIG. 1. A dorsal and ventral view of the holotype of *Sceloporus exsul*, Texas Cooperative Wildlife Collection 32376, adult male, from Peña Blanca, Queretaro, Mexico.



FIG. 2. Distribution of the *Sceloporus undulatus* group in Mexico.

3 young males, all taken from the immediate vicinity of Peña Blanca, Queretaro, 14 June and 14 September 1970.

*Diagnosis:* An average-sized member of the *Sceloporus undulatus* group (maximum snout-vent length 63 mm), differing from *S. undulatus*, *S. cautus*, and *S. virgatus* in lacking definitive dorsal dark spots between the dorsolateral dark bands and also blue patches in the gular region and venter, and in having the following combination of scale characters (counts are averages): scales around the body 35.5; dorsals 33.0; ventrals from level of arm to vent 39.0; fourth toe lamellae 23.5; femoral pore series separated medially by 9.2 scales.

*Description of holotype:* Frontal divided transversely, anterior section twice the size of posterior part; posterior part of frontal in narrow contact with interparietal; interparietal bordered laterally by 2 parietals and 2 frontoparietals; supraoculars 4-4, completely enclosed by single row of supraorbital scales; superciliaries 5-5; prefrontals in contact medially; 3 frontonasals, middle one wider than long, each lateral frontonasal twice as long as wide; 12 internasals (scales between postrostrals and frontonasals); 4 postrostrals; 2 canthals on each side; 2 large subnasals lying within canthal ridge; loreals 1-1; preoculars 1-1, with 2 tiny scales lying immediately above preocular and within anterior edge of orbit; suboculars 1-1, extremely long and narrow; postsuboculars 2-2; auricular spines 5-5, with 4 extremely long and pointed; recognizable supralabials 5-5, infralabials 7-7; postmentals 3-4, second pair separated by 2 gular

scale rows; lorilabials in almost 2 complete rows; lamellar formula for hand 9-13-16-17-12, foot 10-15-19-24-14; dorsals strongly keeled, extremely large and mucronate; 31 dorsals from occiput to above vent; 37 scales around body; 37 ventrals from level of arm to vent; ventral scales about  $\frac{1}{2}$  the size of dorsals and deeply notched; 19 rows of gulars from ear to ear; antehumeral fold with granular center, covered by large mucronate scales along anterior margin; arms and legs covered with relatively large spinose scales; femoral pores 13-14, separated by 9 rows of ventrals; femoral pore scales not deeply notched posteriorly.

*Measurements in mm:* Snout-vent length 63.0; tail length 85.0; axilla-groin length 27.1; length of head 14.0; width of head 13.0; length of hind limb 42.0; length of arm 27.0.

*Color in life:* Dorsal surface of head uniform tan; dorsum of body with uniform brownish-tan vertebral band 5 and 2 half scale rows wide, slightly darker along dorsolateral margins; a pair of dorsolateral cream bands generally  $1\frac{3}{4}$  scale rows wide, extending from above ear to proximal  $\frac{1}{5}$  of tail; dorsolateral cream band bordered below by dark brown band, flecked with black, 1 and 2 half scale rows wide, extending from eye to proximal  $\frac{1}{5}$  of tail; lateral black band bordered below by cream band 2 scale rows wide, extending from ear to hind limb insertion, bordered below by thin, dashed brown line on part of 1 scale row; venter grayish white with obscure dusky areas scattered throughout; limbs marked with dark brown spots having ill-defined borders; tail colored like dorsum; ventral surface of chin, throat, and upper chest dirty white with diffuse spots of brown on each scale; throat and venter completely devoid of blue color.

*Variation:* Of the six specimens, only the type is an adult; therefore, little variation in adult sizes is available.

Number of scales around middle of body varies from 32 to 38 (35.5); number of dorsals varies from 31 to 35 (33.0); number of ventrals from level of arm to vent varies from 37 to 41 (39.0); number of fourth toe lamellae varies from 23 to 24 (23.5); total number of femoral pores varies from 27 to 30 (27.6); scales separating femoral pore series vary from 8 to 10 (9.2); supraoculars number 4-4 in all; superciliaries are 4-4 in three, 5-5 in three; prefrontals in medial contact in all.

The dorsal color pattern is similar in both sexes and very little ontogenetic change in pattern is evident from young to adult. The four young specimens are slightly darker in ground color, with more differentiation between the light and dark longitudinal banding of the body. There is some indication that the inner, narrow dark band bordering the upper cream band consists of a series of ill-defined dark marks loosely connected to each other. This band becomes a very narrow, inner border to the upper dorsolateral cream band in adults.

*Comparisons:* Geographically, *S. cautus* is the nearest member of the *undulatus* group to the type locality of *S. exsul*. Some 275 airline kilometers separate the two nearest localities of each species, but adult male

Table 1. A comparison of the number of scales around middle of body, scales from occiput to above vent, femoral pores, scales separating femoral pore series, and ventrals from level of arm to vent. Numbers in parentheses are averages for each sample examined. Data for *S. undulatus* and *S. virgatus* taken from Cole (1963) and Smith (1938).

	<i>Sceloporus virgatus</i>	<i>Sceloporus undulatus</i>	<i>Sceloporus cautus</i>	<i>Sceloporus exsul</i>
Scales around body	36-48(43.8)	35-47(41.3)	38-42(39.7)	32-38(35.5)
Number of dorsals	34-43(38.7)	36-46(40.5)	31-39(35.2)	31-35(33.0)
Scales sep. F.P. series	4-7 ( 4.8)	2-8 ( 4.9)	9-12(10.6)	8-10( 9.2)
Number of femoral pores	22-34(27.9)	25-37(31.9)	20-28(24.2)	27-30(27.6)
Ventrals, arm to vent	no data	no data	44-50(46.0)	37-41(39.0)

*cautus* have distinctive black-edged, dark blue throat patches and lateral venter patches, while *exsul* has none. Male and female *cautus* have distinct, dark spots or blotches along the inner border of the dorsolateral light line; *exsul* has none. The dorsal surface of the tail is banded with 8 to 12 dark bands in *cautus*, it is uniform in *exsul*. Both species have similar averages in number of dorsals and scales separating the femoral pore series, but differ in average number of scales around middle of body and number of ventrals from arm to vent, and number of femoral pores (Table 1).

The nearest locality of *Sceloporus virgatus* to that of *exsul* is some 1,170 airline kilometers to the northwest. The dorsal and ventral color and pattern of *virgatus* is similar to that of *exsul*, except for absence of blue on the throat and blotches on the dorsum in *exsul*. The number of scales around the body and number of dorsals are higher in *virgatus*, combined with a lower number of scales separating the femoral pore series. In addition, *virgatus* is found at relatively high elevations and generally in oak or pine-oak forests. *Sceloporus exsul* is an inhabitant of desert pavement, with mesquite, leather plant, acacia, prickly pear, ocotillo, and peyote as the common desert plants.

*Sceloporus undulatus* differs from *exsul* in essentially the same characters as *virgatus*, but there are more color differences (blue belly patches) between *undulatus* and *exsul*. The nearest known locality of *undulatus* to an *exsul* locality is approximately 480 kilometers to the north.

#### ACKNOWLEDGMENTS

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